

REMARKS

Generally

Claims 13-25 remain pending in the present application. In this Response, claims 13 and 20 have been amended for clarity. Applicants respectfully request the Examiner to reconsider and withdraw the outstanding rejections in view of at least the foregoing amendments and the following remarks.

Rejections under 35 U.S.C. § 112

Claims 13-17, 19, and 20 have been rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite.

In particular, it is the Examiner's position that "yarns, fibers or filaments" is vague and indefinite as to the meaning of the phrase. (Office Action, Page 2). Initially, Applicants respectfully submit that the Examiner has not clearly set forth his reasoning for why he finds "yarns, fibers or filaments" to be vague and indefinite. Is it because it is the Examiner's position that "yarns, fibers or filaments" are not clearly defined in the specification? Or is it because it is the Examiner's position that "yarns, fibers or filaments" are not clear terms in the English language? Applicants respectfully submit that whether the Examiner takes the position that "yarns, fibers or filaments" are not clearly defined in the specification or that "yarns, fibers or filaments" are not clear terms in the English language, "yarns, fibers or filaments", as presently recited, are not vague or indefinite. First, at least pages 12-15 of the present specification clearly describe what the presently recited "yarns, fibers or filaments" are and how they are made. Second, "yarns", "fibers", and "filaments" are each clearly understood and commonly used English language terms. Finally, the Examiner has relied upon U.S. Patent No. 6,071,612 in setting forth a prior art rejection at page 7 of the Office Action and the foregoing patent discloses a process for producing yarn, fiber or filament with substantially improved whiteness etc. (Abstract). Accordingly, one of the references relied upon by the Examiner also uses the phrase "yarn, fiber, or filament". Does the Examiner believe that "yarn, fiber, or filament" described in U.S. Patent No. 6,071,612 is vague and indefinite as well? If the Examiner maintains his position regarding the foregoing rejection, Applicants respectfully request clarification of the Examiner's position regarding the specific reasons why he finds "yarns, fibers or filaments" to be vague and indefinite, thus clarifying

the record. In view of at least the foregoing, Applicants respectfully submit that the foregoing rejection should be withdrawn.

The specification has been objected to under 35 U.S.C. § 112 for failing to provide an adequate written description of the invention. Further, claim 20 has been rejected under 35 U.S.C. § 112, first paragraph as allegedly failing to comply with the written description requirement. Claim 20 has been amended to delete the phrase "coated and/or encapsulated with at least one mineral and/or organic compound". Thus, withdrawal of the rejections is respectfully requested.

Double Patenting

Claims 1-17 and 19 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 36-38 of co-pending Application No. 10/500,699 (hereinafter "the '699 application"). Initially, it should be noted that claims 1-12 were previously cancelled and thus the rejection of claims 1-12 is moot. Nonetheless, with regard to the rejection of claims 13-17 and 19, it should be noted that the obviousness-type double patenting rejection over the '699 application is moot as the application was abandoned as of the status date December 8, 2008. (See PAIR printout attached herewith). Thus, this rejection should be withdrawn as moot.

Rejections under 35 U.S.C. § 102

Claims 13-17, 19, and 20 have been rejected under 35 U.S.C. § 102(b) as allegedly anticipated by U.S. Patent No. 5,714,255 (hereinafter "Yeh") alone or optionally taken with WO 9967451 (hereinafter "Kane"). Claims 13-17 and 19 have been rejected under 35 U.S.C. § 102(b) as allegedly anticipated by Kane. Claims 13-17 have been rejected under 35 U.S.C. § 102(b) as allegedly anticipated by U.S. Patent No. 6,071,612 (hereinafter "Roderiguez"). These rejections are respectfully traversed.

Initially, it should be noted that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). It should further be noted that unless a reference discloses within the four corners of the document not only all of the limitations claimed but also all of the limitations arranged or combined in the same way as recited in the claim, it

cannot be said to prove prior invention of the thing claimed and, thus, cannot anticipate under 35 USC 102. *Net Moneyin, Inc. v. Verisign, Inc.*, 545 F.3d 1359, 88 U.S.P.Q.2d 1751 (Fed. Cir. Oct. 20, 2008).

Amended independent claim 13 recites yarns, fibers or filaments with antibacterial and antifungal properties, comprising a composition comprising at least one polymer matrix and zinc sulphide.

Yeh describes carpet fibers having added therein phosphorescent pigments, specifically zinc sulphide copper activated pigments. (Abstract). Applicants respectfully submit that Yeh does not disclose zinc sulphide but instead discloses zinc sulphide copper activated pigments. Moreover, Yeh does not disclose yarns with antibacterial and antifungal properties. Applicants further respectfully submit that Yeh does not disclose yarns, fibers or filaments with antibacterial and antifungal properties, comprising a composition comprising at least one polymer matrix and zinc sulphide, as presently recited in amended independent claim 13.

Kane relates to the use of zinc sulphide as a delusterant in a thermoplastic polymer matrix to form flock fibers with reduced wear on the cutting blade. (See page 1, lines 5-10 and page 5, lines 5-7). Applicants respectfully submit that Kane does not disclose yarns with antibacterial and antifungal properties. Applicants respectfully submit that Kane does not disclose yarns, fibers or filaments with antibacterial and antifungal properties, comprising a composition comprising at least one polymer matrix and zinc sulphide, as presently recited in amended independent claim 13.

Roderiguez describes a process for making a melt-spun polyester fibrous product with a zinc sulphide delusterant. (Abstract). Applicants respectfully submit that Roderiguez does not disclose yarns with antibacterial and antifungal properties. Applicants respectfully submit that Roderiguez does not disclose yarns, fibers or filaments with antibacterial and antifungal properties, comprising a composition comprising at least one polymer matrix and zinc sulphide, as presently recited in amended independent claim 13.

Applicants respectfully submit that none of the above-cited documents discloses yarns, fibers or filaments with antibacterial and antifungal properties, comprising a composition comprising at least one polymer matrix and zinc sulphide, as presently recited in amended independent claim 13. Applicants respectfully submit that from the teachings of the above-cited documents, there is no disclosure in Yeh, Kane, or Roderiguez that would

obviously lead one of ordinary skill in the art to the presently recited claims. Applicants respectfully submit that amended independent claim 13 and claims 14-20 dependent therefrom are therefore patentable over Yeh, Kane, and Roderiguez for at least the above-discussed reasons.

In light of at least the foregoing, Applicants respectfully submit that the anticipation rejections should be withdrawn.

Rejections under 35 U.S.C. § 103

The Office has the initial burden of establishing a factual basis to support the legal conclusion of obviousness. *In re Oetiker*, 977 F.2d 1443, 1445, 24 USPQ2d 1443, 1444 (Fed. Cir. 1992). For rejections under 35 U.S.C. § 103(a) based upon a combination of prior art elements, in *KSR Int'l v. Teleflex Inc.*, 127 S.Ct. 1727, 1741, 82 USPQ2d 1385, 1396 (2007), the Supreme Court stated that a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006).

Claims 13-17 and 19 have been rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over the '699 application¹. Claim 20 has been rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Kane taken with U.S. Patent No. 5,180,585 (hereinafter "Jacobson"). These rejections are respectfully traversed.

Amended independent claim 13 recites yarns, fibers or filaments with antibacterial and antifungal properties, comprising a composition comprising at least one polymer matrix and zinc sulphide.

The '699 application describes the use of zinc sulphide as an agent for combating acarids. (Abstract). Applicants respectfully submit that acarids are not bacteria or fungi. Thus, Applicants respectfully submit that the '699 application does not disclose or suggest yarns, fibers or filaments with antibacterial and antifungal properties, comprising a composition comprising at least one polymer matrix and zinc sulphide, as presently recited

¹ The '699 application published as U.S. Patent Publication No. 2005-0084543. It is believed that the Examiner has relied upon the foregoing publication in setting forth the obviousness rejection.

in amended independent claim 13.

Kane relates to the use of zinc sulphide as a delusterant in a thermoplastic polymer matrix to form flock fibers with reduced wear on the cutting blade. (See page 1, lines 5-10 and page 5, lines 5-7). Applicants respectfully submit that Kane does not disclose yarns with antibacterial and antifungal properties. Applicants further respectfully submit that Kane does not disclose yarns, fibers or filaments with antibacterial and antifungal properties, comprising a composition comprising at least one polymer matrix and zinc sulphide, as presently recited in amended independent claim 13.

Jacobson discusses an antimicrobial composition comprising inorganic particles with a first coating comprising metal derivatives providing antimicrobial properties and with a second coating comprising silica, silicates. (See claim 1). Jacobson provides a long list of antimicrobial active ingredients, including zinc sulphide. However, Applicants respectfully submit that Jacobson does not disclose or suggest yarns, fibers or filaments with antibacterial and antifungal properties, comprising a composition comprising at least one polymer matrix and zinc sulphide, as presently recited in amended independent claim 13. More particularly, Applicants respectfully submit that none of the examples in Jacobson specifically discloses zinc sulphide as an active ingredient. Moreover, Applicants respectfully submit that there is no disclosure or suggestion in Jacobson that zinc sulphide could provide yarns with antibacterial and antifungal properties.

Applicants respectfully submit that none of the above-cited documents discloses yarns, fibers or filaments with antibacterial and antifungal properties, comprising a composition comprising at least one polymer matrix and zinc sulphide, as presently recited in amended independent claim 13. Applicants respectfully submit that from the teachings of the above-cited documents, there is no disclosure in the '699 application, Kane, or Jacobson that would obviously lead one of ordinary skill in the art to the presently recited claims. Applicants respectfully submit that amended independent claim 13 and claims 14-20 dependent therefrom are therefore patentable over the '699 application, Kane, and Jacobson for at least the above-discussed reasons.

In light of at least the foregoing, Applicants respectfully submit that the obviousness rejections should be withdrawn.

Conclusion

Applicants invite the Examiner to contact Applicants' representative at the telephone number listed below if any issues remain in this matter, or if a discussion regarding any portion of the application is desired by the Examiner.

In the event that this paper is not timely filed within the currently set shortened statutory period, Applicants respectfully petition for an appropriate extension of time. The fees for such extension of time may be charged to our Deposit Account No. 02-4800.

In the event that any additional fees are due with this paper, please charge our Deposit Account No. 02-4800.

Respectfully submitted,

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10/500,699	Use of zinc sulfide as an anti-mite agent	04-06- 2009::12:04:09
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Bibliographic Data

Application Number:	10/500,699	Customer Number:	-
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Application Type:	Utility	Status Date:	12-08-2008
Examiner Name:	CHUI, MEI PING	Location:	ELECTRONIC
Group Art Unit:	1616	Location Date:	-
Confirmation Number:	6703	Earliest Publication No:	US 2005-0084543 A1
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Class / Subclass:	424/641	Patent Number:	-
First Named Inventor:	Sandrine Rochat , Villeurbanne, (FR)	Issue Date of Patent:	-

Title of Invention:	Use of zinc sulfide as an anti-mite agent
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